

## CHAPTER 1. ADMINISTRATIVE

### Section 1. Scope

**1. PURPOSE.** This Handbook contains criteria which shall be used to formulate, review, approve, and publish procedures for instrument approach and departure of aircraft to and from civil and military airports. These criteria are for application at any location over which an appropriate United States agency exercises jurisdiction.

\* **2. DISTRIBUTION.** This order is distributed to selected Federal Aviation Administration addressees. For distribution within the Department of Defense see pages v and vi.

**3. CANCELLATION.** The United States Standard for Terminal Instrument Procedures (TERPS) 8260.3A, TM 11-2557-26, OPNAV Inst. 3722.16B, JAFM 55-9, and CG 318, dated February 6, 1970, are canceled.

**4. EXISTING PROCEDURES.** Existing procedures shall comply with these standards. Approval of nonstandard procedures as required is specified in paragraph 141.

**5. TYPES OF PROCEDURES.** Criteria are provided for the following types of authorized terminal instrument procedures:

#### *a. Precision Approach.*

(1) **Straight-In.** A descent in an approved procedure where the navigation facility alignment is normally on the runway centerline and glide slope information is provided. For example, Precision Approach Radar (PAR) and Instrument Landing System (ILS) procedures are Precision Approaches.

(2) **Simultaneous.** A procedure which provides for approaches to parallel runways. This procedure typically uses two ILS-equipped parallel runways. Simultaneous approaches, when authorized, shall be radar monitored. Military

commanders may approve simultaneous approaches based upon dual precision radar.

#### *b. Nonprecision Approach.*

(1) **Straight-In.** A descent in an approved procedure in which the final approach course alignment and descent gradient permits authorization of straight-in landing minimums.

*c. Circling.* A descent in an approved precision or nonprecision approach procedure to circling minimums from which a circle to land maneuver is performed, or an approach procedure which does not meet criteria for authorizing straight-in landing minimums.

*d. Departure Procedures.* Procedures designed to provide obstacle clearance during instrument departures.

\* **6. WORD MEANINGS.** Word meanings as used in this manual:

*a. Shall* means that application of the criteria is mandatory.

*b. Should* means that application of the criteria is recommended.

*c. May* means that application of the criteria is optional.

**7.-119. RESERVED.**

### Section 2. Eligibility, Approval, and Retention

#### **120. ELIGIBILITY.**

*a. Military Airports.* Procedures at military airports shall be established as required by the commander in accordance with the directives of the appropriate military department.

*b. Civil Airports.* Terminal instrument procedures shall be provided at civil airports open to the aviation public whenever a reasonable need is shown. No minimum number of potential instrument approaches is specified; however, the responsible FAA office must determine that a public procedure will be beneficial to more than a single user or interest. Private procedures, for the exclusive use of a single interest, may be provided

on a reimbursable basis in accordance with FAR 171 where applicable, if they do not unduly conflict with the public use of airspace. Reasonable need is deemed to exist when the instrument flight procedure will be used by:

- (1) A certificated air carrier, air taxi, or commercial operator OR;
- (2) Two or more aircraft operators whose activities are directly related to the commerce of the community OR;
- (3) Military aircraft.

#### 121. REQUESTS FOR PROCEDURES.

Requests for military procedures are processed as described by the appropriate military service. No special form is required for requesting civil procedures. Civil requests may be made by letter to the appropriate Regional Office. Requests for civil procedures shall be accepted from any aviation source, provided the request shows that the airport owner/operator has been advised of this request. (This advice is necessary only when the request is for an original procedure to an airport not already served by an approach procedure.) Airport owners/operators will be advised of additional requests for procedures by the FAA as soon as possible after receipt thereof.

**122. APPROVAL.** Where a military requirement or reasonable civil need has been established, a request for an instrument approach procedure and/or instrument departure procedure for an airport shall be approved if the following minimum standards are met:

*a. Airport.* The airport landing surfaces must be adequate to accommodate the aircraft which can be reasonably expected to use the procedure. Runway lighting is required for approval of night instrument operations. The airport must have been found acceptable for IFR operations as a result of an airport airspace analysis conducted pursuant to FAA Handbook 7400.2 "Procedures for Handling Airspace Matters," and/or appropriate military directives as applicable. Only circling minimums shall be approved to airports where the runways are not clearly defined.

*b. Navigation Facility.* All electronic and visual Navigation facilities used must successfully pass flight inspection.

*c. Obstacle Marking and Lighting.* Obstacles which penetrate FAR 77 imaginary surfaces are obstructions and therefore should be marked and lighted, insofar as is reasonably possible, in accordance with FAA Advisory Circular AC 70/7460.1, "Obstruction Marking and Lighting." Those penetrating the FAR 77 approach and transitional surfaces should be removed or made conspicuous in accordance with that Advisory Circular. Normally, objects which are shielded need not be removed or made conspicuous.

**NOTE:** In military procedures the appropriate military directives apply.

*d. Weather Information.* Terminal weather observation and reporting facilities must be available for the airport to serve as an alternate airport. Destination minimums may be approved when a general area weather report is available prior to commencing the approach and approved altimeter settings are available to the pilot prior to and during the approach consistent with communications capability.

*e. Communications.* Air-to-ground communications must be available at the initial approach fix minimum altitude and when the aircraft executing the missed approach reaches the missed approach altitude. At lower altitudes communications shall be required where essential to the safe and efficient use of airspace. Air-to-ground communication normally consists of UHF or VHF radio, but HF communication may be approved at locations which have a special need and capability. Other suitable means of point-to-point communication, such as commercial telephone, are also required to file and close flight plans.

#### 123. RETENTION AND CANCELLATION.

Civil instrument procedures shall be canceled when a reevaluation of the usefulness of an instrument approach procedure indicates that the benefits derived are not commensurate with the costs of retaining the procedure. This determination will be based upon an individual evaluation of requirements peculiar to each specific location, and will consider airport

complexity, military requirements, planned airport expansion, and the need for a backup or supplement to the primary instrument approach system. Certain special procedures exist, generally based on privately operated navigation facilities. When a procedure based on a public facility is published, special procedures for that airport shall be canceled unless retention provides an operational advantage to the user. Before an instrument procedure is canceled, coordination with civil and military users shall be effected. Care shall be taken not to cancel procedures required by the military or required by air carrier operators at provisional or alternate airports. **Military procedures shall be retained or canceled as required by the appropriate military authority.**

#### 124.-129. RESERVED.

### Section 3. Responsibility and Jurisdiction

#### 130. RESPONSIBILITY.

*a. Military Airports.* The United States Army, Navy, Air Force, and Coast Guard shall establish and approve terminal instrument procedures for airports under their respective jurisdictions. The FAA will accept responsibility for the development and/or publication of military procedures when requested to do so by the appropriate military department through an interagency agreement. Military terminal instrument procedures are official procedures. The FAA shall be informed when military procedures are canceled.

*b. Civil Airports.* The FAA shall establish and approve terminal instrument procedures for civil airports.

*c. Military Procedures at Civil Airports.* Where existing FAA approach or departure procedures at civil airports do not suffice, the military shall request the FAA to develop procedures to meet military requirements. These requirements may be met by modification of an existing FAA procedure or development of a new procedure. The FAA shall formulate, coordinate with the military, and industry, publish and maintain such procedures. The military shall inform the FAA when such procedures are no longer required.

**131. JURISDICTION.** The United States Army, Navy, Air Force, and Coast Guard Commanding Officers, or FAA Regional Directors having jurisdiction over airports are responsible for initiating action in accordance with these criteria to establish or revise terminal instrument procedures when a reasonable need is identified, or where:

- a. New facilities are installed.
- b. Changes to existing facilities necessitate a change to an approved procedure.
- c. Additional procedures are necessary.
- d. New obstacles or operational uses require a revision to the existing procedure.

#### 132.-139. RESERVED.

### Section 4. Establishment

**140. FORMULATION.** Proposed procedures shall be prepared in accordance with the applicable portion of this publication as determined by the type and location of navigation facility and procedure to be used. To permit use by aircraft with limited navigational equipment, the complete procedure should be formulated on the basis of a single navigation facility whenever possible. However, the use of an additional facility of the same or different type in the procedure to gain an operational advantage is permitted.

**141. NONSTANDARD PROCEDURES.** The standards contained in this manual are based on reasonable assessment of the factors which contribute to errors in aircraft navigation and maneuvering. They are designed primarily to assure that safe flight operations for all users result from their application. The dimensions of the obstacle clearance areas are influenced by the need to provide for a smooth, simply computed progression to and from the enroute system. Every effort shall be made to formulate procedures in accordance with these standards; however, peculiarities of terrain, navigation information, obstacles, or traffic congestion may require special consideration where justified by operational requirements. In such cases,

nonstandard procedures which deviate from these criteria may be approved, provided they are fully documented and an equivalent level of safety exists. A nonstandard procedure is not a substandard procedure, but is one which has been approved after special study of the local problems has demonstrated that no derogation of safety is involved. The Office of Flight Operations, FAA, Washington, D.C. is the approving authority for nonstandard civil procedures. Military procedures which deviate from standards because of operational necessity, and in which an equivalent level of safety is not achieved, shall include a cautionary note to identify the hazard and shall be marked "not for civil use".

**142. CHANGES.** Changes in instrument procedures shall be prepared and forwarded for approval in the same manner as in the case of new procedures. Changes so processed will not be made solely to include minor corrections necessitated by changes in facility frequencies, variation changes, etc., or by other minor changes not affecting the actual instrument procedure. Changes which require reprocessing are those which affect fix, course, altitude or published minimum.

**143.-149. RESERVED.**

## Section 5. COORDINATION

**150. COORDINATION.** It is necessary to coordinate terminal instrument procedures to protect the rights of all users of airspace.

*a. Military Airports.* All terminal instrument procedures established or revised by military activities for military airports shall be coordinated with the FAA or appropriate agency or an overseas host nation. When a procedure may conflict with other military or civil activities, the procedure shall also be coordinated with those activities.

*b. Civil Airports.* Prior to establishing or revising terminal instrument procedures for civil airports, the FAA shall, as required, coordinate such procedures with the appropriate civil aviation organizations. Coordination with military activities is required when a military operating unit is based at the airport or when the proximity of a military airport may cause procedural conflicts.

*c. Air Traffic Control.* Prior to establishing or revising terminal instrument procedures for a military or civil airport, the initiating office shall coordinate with the appropriate FAA Air Traffic office to insure compatibility with air traffic flow and to assess the impact of the proposed procedure on current or future air traffic programs.

*d. Airspace Actions.* Where action to designate controlled airspace for a procedure is planned, the airspace action should be initiated sufficiently in advance so that effective dates of the procedure and the airspace action will coincide.

*e. NOTAM's.* A NOTAM to change minimums may be issued in case of emergencies; i.e., facility outages, facility out-of-tolerance conditions, new construction which penetrates critical surfaces, etc. NOTAM's may also be issued when a supporting facility is added and a significant change in minimums will result, or when a procedure turn altitude is modified as the result of construction or terrain, or when a facility restriction is removed. However, a complete new procedure may not be issued by NOTAM, except where military requirements dictate. If it becomes necessary to expedite the publication of a complete civil procedure, or to revise the effective date of procedures, the Washington office, AFO-700, will be contacted to determine the most effective course of action. ATC shall be advised of the required NOTAM action prior to issuance and normal coordination shall be effected as soon as practicable.

**151. COORDINATION CONFLICTS.** In areas under the FAA jurisdiction, coordination conflicts which cannot be resolved at the field level shall be submitted to the appropriate FAA region for additional coordination and resolution. Problems which are unresolved at the regional level shall be \* forwarded to the Office of Flight Operations, \* FAA, Washington, D.C. for action. If the problem involves a military procedure, parallel action through military channels shall be taken to expedite coordination at the appropriate level.

**152.-159. RESERVED.**

## Section 6. Identification of Procedures

### 160. IDENTIFICATION OF PROCEDURES.

Terminal instrument procedures shall be identified to be meaningful to the pilot, and to permit ready identification in air traffic control phraseology.

**161. STRAIGHT-IN PROCEDURE IDENTIFICATION.** Procedures which meet criteria for authorization of straight-in landing minima shall be identified by the type of navigational aid(s) which provide final approach guidance and the runway to which the final approach course(s) are aligned; e.g. ILS Rwy 18R, LOC BC Rwy 7, TACAN Rwy 36, LDA Rwy 4, NDB Rwy 21, VOR Rwy 15, VOR/DME Rwy 6, ILS or TACAN Rwy 9, etc. A slash (/) shall indicate that more than one type of equipment must be used to execute the final approach; e.g. VOR/DME, etc. When procedures are combined, the word 'or' shall indicate either type of equipment may be used to execute the final approach; e.g., ILS or TACAN, ILS or NDB, VOR/DME or TACAN, etc. When the same final approach guidance is used to the same runway, the procedures shall be identified as follows: TACAN 1 Rwy 36, TACAN 2 Rwy 36, VOR 1 Rwy 18, VOR 2 Rwy 18, etc.

**162. CIRCLING PROCEDURE IDENTIFICATION.** When a procedure does not meet criteria for straight-in landing minimums authorization, it shall be identified by the type of navigational aid which provides final approach guidance, and an alphabetical suffix. The first procedure formulated shall bear the suffix "A" even though there may be no intention to formulate additional procedures. If additional procedures are formulated, they shall be identified alphabetically in sequence, e.g., VOR-A, VOR/DME-B, NDB-C, NDB-D, LDA-E, etc. A revised procedure will bear its original identification.

**163. DIFFERENTIATION.** Where high altitude procedures are required the high altitude procedure identification shall be prefixed with the letters "HI", e.g., HI-VOR Rwy 5.

**164-169. RESERVED.**

## Section 7. Publication

**170. SUBMISSION.** Terminal instrument procedures shall be submitted by the approving authority on forms provided by the originating agency. A record of coordination shall be maintained by the originating agency. Procedures shall be routed in accordance with current orders or directives of the originating agency.

**171. ISSUANCE.** The following are designated as responsible offices for the release of approved terminal instrument procedures for each agency.

*a. Army.* Director, U.S. Army Aeronautical Services Office.

*b. Navy and Marine Corps.* OPNAVSUP-PACT Naval Flight Information Group. \*

*c. Air Force.* Chief, Airspace and Air Traffic Services, HQ, USAF.

*d. Coast Guard.* Commandant, U.S. Coast Guard.

*e. Civil.* Administrator, Federal Aviation Administration.

**172. EFFECTIVE DATE.** Terminal instrument procedures and revisions thereto shall be processed in sufficient time to permit publication and distribution in advance of the effective date. Effective dates should normally coincide with scheduled airspace changes except when safety or operational effectiveness is jeopardized. In case of emergency, or when operational effectiveness dictates, approved procedures may be disseminated by NOTAM (see paragraph 150e). Procedures disseminated by NOTAM must also be processed promptly in the normal fashion and published in appropriate terminal instrument procedures charts and in the Federal Register when required.

**173.-199. RESERVED.**